

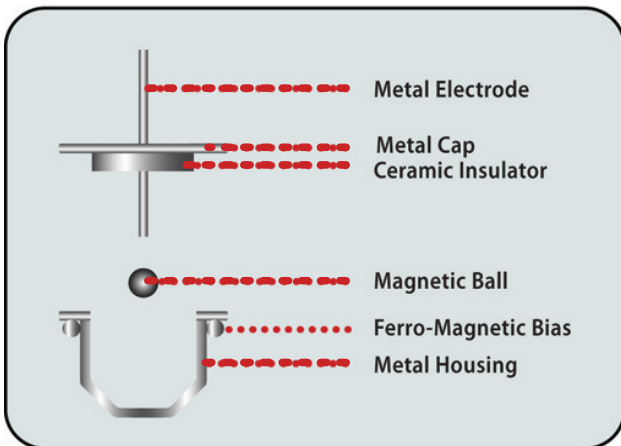
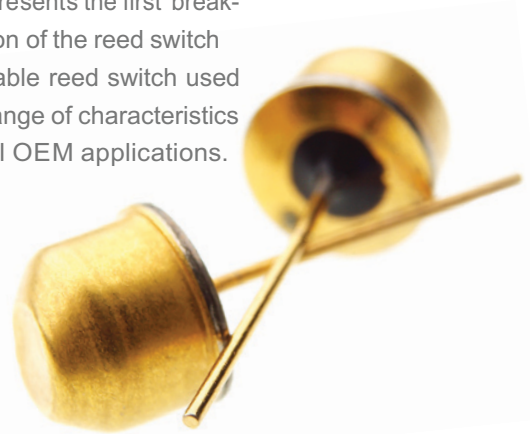


# Technology Overview MAGNASPHERE®



THE PATENTED, AWARD-WINNING MAGNASPHERE SWITCH represents the first breakthrough in two-wire magnetic switch technology since the introduction of the reed switch in the 1930's. Originally designed as a replacement for the vulnerable reed switch used in security systems, the MAGNASPHERE switch exhibits a wide range of characteristics that make it an ideal solution for many industrial and commercial OEM applications.

- Hermetically sealed contacts
- Non-contact operation
- Robust metal construction
- Magnetic anti-tamper
- High voltage EMI resistance
- Wide operating temperature range
- Intrinsically safe for use in volatile atmospheres
- Compact size
- Lowcost ferrous proximity sensing
- Available in form A (n.o.) and B (n.c.)



## CONSTRUCTION

The basis of the technology is a magnetic sphere, or ball contact housed in a durable metal housing. Completing the switch is a seal that contains the contacting electrode, insulated from the magnetic perimeter by a ceramic to metal bond. The case or seal provide the second contact point required to complete the electrical circuit. The seal/electrode cap is welded to the housing in an inert atmosphere providing a hermetically sealed contact. Post-assembly magnetizing activates the magnetic properties of the contact.

## FUNCTIONALITY

In the open position, the magnetic sphere is attracted to the ferromagnetic bias ring, away from the electrode. Because of this attraction, the switch may be positioned in any orientation and will remain open. When an actuating magnet approaches the switch from the end of the switch opposite the electrode, the magnetic ball is attracted to this field, and “snaps” to the bottom of the case, making contact with the electrode and case, closing the switch.

